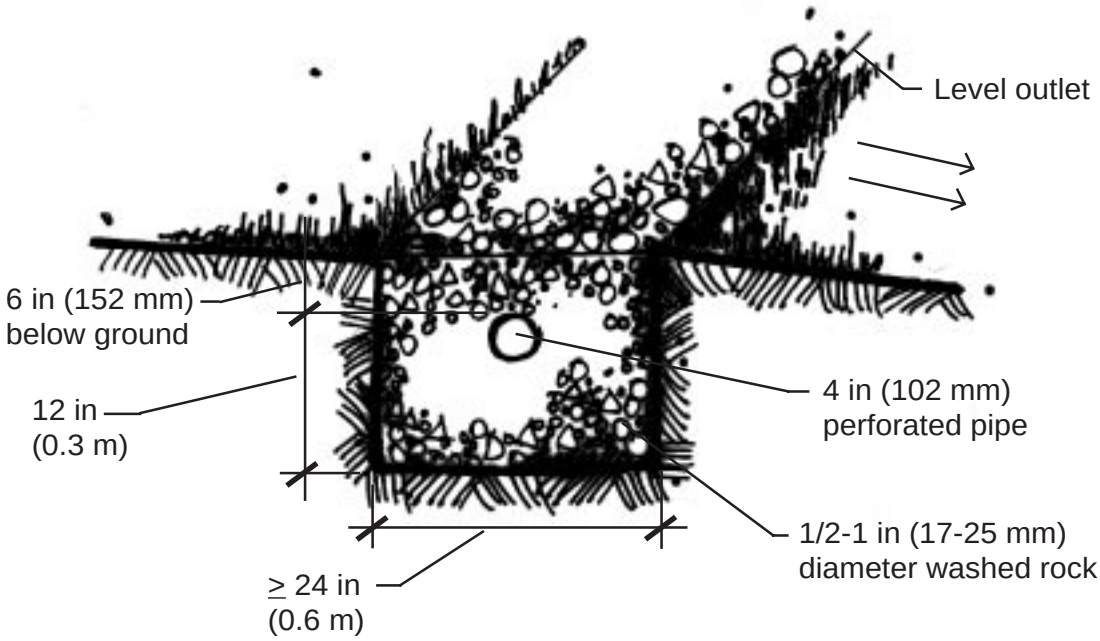
**PRIMARY USE**: For steep single family residential driveway areas on large lots where there are short vegetative flow paths; to diffuse and reduce velocity of stormwater runoff.
**ADDITIONAL USES:** Can be used for roof downspouts and other similar concentrated flow situations.

# DISPERSION TRENCH

**What is it?** Dispersion trenches are relatively short, small, aggregate-filled cells which accept concentrated runoff from single discharge points, e.g., gutters and downspouts, where vegetative flow paths are less than 50 ft (15 m).

## Purpose

Runoff dispersed by these trenches is diffused and reduced in velocity, thereby reducing incidences of onsite erosion and adverse effects of runoff reaching downstream locations. Some infiltration is promoted as well as storage.




**Dispersion Trench**
**Section View**

## Limitations

The piping for this BMP is more expensive than simple dispersion structures.

## Materials

Appropriate size perforated pipe; 0.5-1 in (12-25 mm) washed rock.

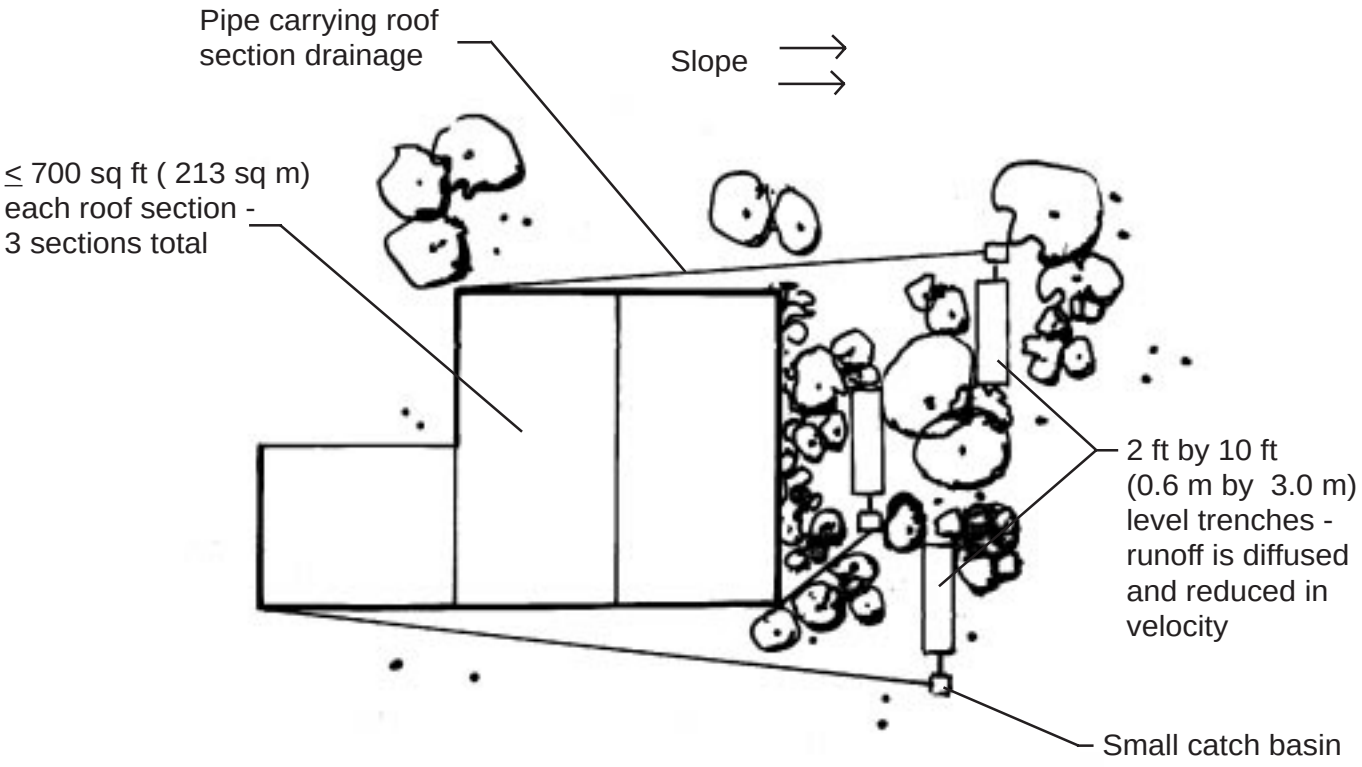
## Installation

A vegetated flow path of no less than 25 ft (7.5 m) is required between the trench outlet and property lines, structures, vulnerable areas of steep slopes, wetlands, streams, and impervious surfaces; sensitive buffer areas can serve in lieu of flow path lengths. Minimum 5 ft (1.5 m) setbacks must exist between trench edges and property lines and structures. Except where topography will safely direct flows away, discharge points must be downgradient of drain field primary and reserve areas.

**Source:** Surface Water Design Manual; King County, Washington.

# DISPERSION TRENCH

**Additional Drawings:**




**Dispersion Trench Connected to Residental Roof Downspouts**
**Plan View**